

some doubts whether I am right in placing it here—perhaps, in many respects, it is more nearly allied to *B. tamatia*, &c.

Spix's specimens came from high up the Amazons, I expect, as Tschudi found the bird in Eastern Peru. An example in my collection has every appearance of a Bogota skin.

[To be continued.]

XXXI.—*Observations on the Fauna of Barrackpoore.* By Capt.

ROBERT C. TYTLER, of the 38th Regiment Bengal Light Infantry.

SINCE the following observations will in all probability be uninteresting to most readers, I give them expressly for the assistance and guidance of those who visit Calcutta from foreign ports, and are desirous during perhaps a limited stay to procure specimens of natural history belonging to Bengal, and which frequently without their own personal exertions they are unable to do; I therefore select the fauna of Barrackpoore (a pretty military station) and its immediate vicinity, where I resided for upwards of two years, thus having ample opportunities to render myself tolerably familiar with the birds and small mammalia that belong to or occasionally visit this part of Bengal.

The distance from Calcutta to Barrackpoore is fifteen miles. The road is planted on both sides with tall superb trees, and it is chiefly on this road and its vicinity that I obtained or observed the specimens which form the subject of my observations; other genera and species besides those enumerated by me have been occasionally collected, but these I shall omit mentioning as they did not fall under my immediate observation, and solely confine myself to those that did.

I shall therefore begin with the *Palæornis torquatus*, the common ring-necked green or Mango Parrot of India; it is very common, as well as the elegant red-headed *Palæornis cyanocephalus*; the latter is difficult to obtain, from being so constantly persecuted by native bird-catchers; the females have a bluish-coloured head. The *Palæornis barbatus* is to be had, but very rarely; I only obtained two specimens; besides these three species, I have seen no other of this genus.

I shall now proceed to the Raptores, and commence with the *Hypotriorchis severus*, a beautiful little species and uncommon. *Tinnunculus alaudarius*, which is the same as the European Kestrel, is common. The *Elanus melanopterus* is often met with, as well as *Hæmatornis cheela*; this latter is a noble crested bird, found near marshes, where abundance of the *Circus æruginosus*,

the same bird as the English Marsh Harrier, is found. The *Circus cinerascens*, or Montagu's Harrier of England, is also sometimes obtained, as well as *Circus melanoleucus*, but the latter is rare. The species of Raptores most frequently obtained is the *Micronisus badius*, which is very plentiful. The *Spizaëtus limnaëtus* and *Pontoaëtus ichthyaëtus*, two fine species, are both uncommon; however I was fortunate in obtaining good specimens of both. The *Haliastur indus* and *Milvus ater* are very abundant, and found everywhere; the first is known as the Brahminee Kite, and the latter as the common Kite of all India.

The Vultures follow, and I shall first mention the *Otogyps calvus*; they are common, and recognised at once by their scarlet head and wattles from other vultures: the other two species are *Gyps indicus* and *Gyps bengalensis*; the former is of a brown and the latter of a black colour. I have seen no other vultures in this neighbourhood: all three are very common, the two last more so than the first, which latter is frequently called the King of the Vultures: these birds are so peculiarly filthy and disgusting in their habits, that few collectors bestow much attention or pains in procuring them.

I was rather unfortunate in my collection of Owls, but succeeded in procuring good specimens of *Scops aldrovandi* and the fine large Horned Owl, the *Ketupa javanensis*, as also *Ninox scutulatus*; all these three species may be considered uncommon; but the little *Athene brama* is very common, frequenting old trees and houses. The only other owl procured in this locality was the common *Strix javanica*, so closely allied to the *Strix flammea* of England (the Barn Owl).

The *Upupa epops*, the Hoopoe of England, is not common at Barrackpoore, though during the cold season a few may be procured.

We now proceed to the Kingfishers: the *Halcyon ghurial* and *Halcyon smyrnensis* are both very common, but the *Halcyon amauropterus* is rare; this latter abounds in the Soonderbunds, and occasionally visits Barrackpoore. This tribe of birds is easily found from their constant coarse shrill call; they frequent the neighbourhood of trees, whereas the common *Ceryle varia* of Strickland, which is the Asiatic variety of *Ceryle rudis*, abounds near streams of water and large rivers, where they may constantly be seen hovering in the air like a kestrel in search of their prey. The *Alcedo bengalensis* is also very common, and found in retired shady places near water. We now come to the common and only Roller I have seen in this part of the country, the *Coracias indica*; there are but few Europeans who are not acquainted with the Indian Blue Jay, as this bird is

called. The *Eurystomus orientalis* is also found, but is very rare.

Amongst the Bee-eaters I can only mention two species, the very common little green *Merops viridis*, and the less common large species *Merops philippensis*; this latter is a well-known cold-weather visitor. One of the most common Woodpeckers is the gay-coloured *Brachypternus aurantius*; it is very abundant; the male is easily distinguished from the female by its complete scarlet head, whilst the head of the female is speckled with white on the forehead. Another very common species is the small black and white *Picus macei*; in the male of this species the head is red, in the female black. The next species, *Micropternus phaiiceps*, which is a brown Woodpecker, is not common; the males have red on their cheeks. I now conclude the Woodpeckers by mentioning my good fortune in obtaining a male and female of *Gecinus chloropus*; they are green and very rare. During the cold season numbers of the English Wryneck, *Yunx torquilla*, are found about orchards and gardens. There are only two species of Barbets found about Barrackpoore, the *Megalaima asiatica* and the small *Megalaima philippensis*, both very abundant; they are easily distinguished from each other, when concealed by the thick foliage of the trees they frequent, by their totally different constant call; the note of the *M. asiatica* sounds like *kootur, kootur, kootur*, constantly repeated, but the note of the *M. philippensis* is a simple *koot, koot, koot*; they are not easily distinguished from the leaves of trees, their colour being somewhat of the same hue.

I shall next mention the Cuckoos, and begin with a very common species, the *Cuculus varius*; it is found in gardens and orchards, as also the *Cuculus striatus*, or *Bhow kuttah kho* of the Bengalees: this latter is a rare bird; its call is very like the note of the *Pomatorhinus erythrogenys* of the Himalayas. *Bhow kuttah kho* signifies in Bengalee—*Daughter-in-law tell a tale*; the note sounds very like a double cuckoo, thus *cuckoo, cuckoo*. The *Cuculus tenuirostris* is also found, but is rather uncommon, and I obtained but few specimens. I now come to one of the most common species, the *Eudynamis orientalis*, or *Coel* of India; the male is black and the female brown, speckled with white; both have scarlet eyes; the young male though black is speckled with white, and the young of both sexes have dark eyes: the contrast in the colour of male and female has frequently misled people to suppose them to be different birds: this *Eudynamis* deposits its eggs in the nest of the common crow, *Corvus splendens*. The eggs of both species are very similar, with the exception that the Crow's is more pointed at one end; otherwise the similarity is great. The call of the *Coel* is well known: at daybreak they

welcome the first rays of light by their wild attractive note ; they call also during the day, and not unfrequently at night ; in cloudy and rainy weather they make a clamorous noise ; natives often keep them in cages expressly for their wild cheerful note. As the rainy season sets in, the *Oxylophus melanoleucus* begin to appear, and their call is heard in every direction ; this is a fine black and white species with a crest : the handsome *Oxylophus coromandus* is also found, but is very rare. I now come to a very common bird, and the last species of this group I have found at Barrackpoore, the *Centropus philippensis*, or large Crow Pheasant of Europeans. I obtained only two species of the genus *Caprimulgus*, viz. *C. asiaticus* and *C. albonotatus*, the former is more common than the latter. The Swifts are limited to two, the *Cypselus affinis* and *C. balassiensis* ; the latter is a most delicate, slight species, frequenting palm-trees and building their nests in the fronds of the *Borassus* ; the former species build in houses, &c.

One of the most common birds in India is the *Corvus splendens* or common Crow, which occurs in abundance everywhere, both in country and town, and is mischievous to a degree ; it is the nest of this bird that the *Coel* generally selects for her eggs : the only other Crow found here is the *Corvus culminatus* ; these birds are common, and are called Ravens in India. After leaving the Crows, the next bird to be mentioned is the *Dendrocitta rufa* ; they are common and soon attract attention by their constant call of *Chugul Khore*, or tell-tale ; these birds are called Brown Magpies. We now come to the *Minas* ; the first and most common is the *Acridotheres tristis*, or *Dassee mina* of the natives ; they are very numerous and are often kept in cages, as they soon learn to imitate sounds and become docile. The *Acridotheres griseus* is also found, but rarely ; this bird is known by its peculiar crest and yellow eye ; it is not such a favourite cage-bird as the last-mentioned species. The *Sturnus contra* is very plentiful ; I have seen some tame ones which could imitate sounds very well ; they become very tame and are often kept by natives. The last of this group which I have seen in this part of Bengal is *Sturnia malabarica* ; they are common, and build in the hollows of trees, keeping together in large flocks.

That interesting bird the *Ploceus philippensis*, is the only species of the Weaver-bird that I have seen at Barrackpoore ; the long bottle-shape nest of this bird, hanging in numbers to the leaves of the palm and other trees, cannot fail to attract the notice of the most unobservant individual. The *Ploceus manyar* and *Ploceus bengalensis* have both been obtained in this neighbourhood, but I have never seen them. Amongst the little *Munias* are *M. rubronigra*, *M. undulata*, and *M. malabarica*, all equally common. The *Passer indicus*, or common House Sparrow,

is plentiful everywhere, building in houses and quite tame in their habits.

I now come to a class of birds, which from their dull colours and obscure appearance seldom engage the attention of collectors; they are the Larks found about this station. I will begin with *Alauda gulgula*, which is common; *Mirafra affinis* and *Mirafra assamensis* are by no means uncommon: the genus *Mirafra* is easily distinguished from other larks by their thick-set appearance. The little *Pyrrhulauda grisea*, which is common, frequents open fields; the males have black underneath, but in every other respect so similar is the general colour of these little creatures to the ground they frequent that they are often passed unobserved, besides which they conceal themselves by lying flat on the ground. The *Dendronanthus maculatus* is not uncommon, and frequents groves of trees; the habits of this bird are very interesting; they are found amongst dry leaves, and when disturbed fly into the trees and conceal themselves among the branches. The *Anthus richardii* of England is also met with, but is rather rare; while the *Anthus rufulus* is very plentiful, and is caught by natives and sold for food to Europeans; in fact, all larks are called by them *Begarees*, by which term *Ortolans* are supposed to be understood; however there is scarcely a lark in India that does not possess its own peculiar native name. The most interesting of this group is the pretty *Nemoricola indica*, which seems to partake both of the habits of the lark and wagtails: it is not common.

The four species of Water Wagtails as they are termed, are all very common and cold-weather visitors, viz. *Motacilla luzoniensis*, *M. boarula*, *Budytes citreola* and *B. viridis*; as the three latter are yellowish and often cause confusion, I will simply mention that the genus *Motacilla* is easily distinguished from *Budytes* by the long lark-like nail on the hallux of *Budytes*; *B. citreola* and *B. viridis* are easily distinguished by the green hue on the back of the latter.

We leave these comparatively speaking attractive birds, and come to those of more sombre plumage, such as the *Sphenura striata*; this is an uncommon bird, found amongst bushes near water; the bristles at the base of the mandibles are curiously placed. The *Sat Bhya*, or as they are frequently called *Panch Bhyas*, which means "seven or five brothers," the *Malacocercus bengalensis*, are very common, and are found in gardens and jungle, hopping about in search of food; they are well known; their colour is of a dirty brown, and they have a peculiar white eye, which gives them a most uninteresting appearance. The little *Drymoica inornata* and *Cisticola cursitans* are found in

great numbers amongst the long grass ; the latter is so very minute that it frequently escapes all observation.

That wonderful little bird the *Orthotomus longicauda*, or Tailor-bird of India, is very common, and builds its nest in gardens and other suitable places ; the nests are very peculiar, composed outwardly of from one to four leaves stitched together, enclosing a nest of the finest construction and materials within it : the eggs not only differ in number, but very much in colour and shape ; I have some white and speckled with brown, others pure white, and so on ; a bluish gray and speckled are the most common. The Indian variety of *Lanius superciliosus* is very common, but the *L. nigriceps* is rather uncommon and only met with at some little distance from cantonments. Occasionally great numbers of *Tephrodornis pondiceriana* make their appearance ; and I have obtained a fine specimen of that beautiful bird *Pitta triostegus*, found amongst dry leaves under mango-trees ; they are here very rare ; so is the *Oreocincladauma*, of which I obtained several good specimens. The *Turdus atrogularis* and *merula, houl houl*, sometimes make their appearance, but this is very rarely the case ; I only saw one of each species. Of the genus *Geocichla* I obtained three species : *G. unicolor*, very rare ; *G. citrina*, very common ; and *G. dissimilis*, often found in groves of trees ; it is very singular that, out of the numbers of *Geocichla dissimilis* shot, a male is seldom or never procured ; this latter, when in fine adult plumage, is distinguished from the sombre colour of the female by the bright reddish streaks on its flanks. I procured two fine specimens of *Kittacincla macrourus*, the *Shama* of India ; they were shot in rather thick jungle, and are very rare, whereas the *Copsychus saularis*, the *Dhial* of the natives, is very common ; both these species are good songsters, particularly the first, but at all times are delicate birds unless well fed with worms, &c. A good singing *Shama* is a valuable bird, and not easily purchased ; the natives are very partial to them and keep a great many ; their cages are covered over with a white cloth to prevent their being disturbed, for they are very timid, besides which they sing better and oftener when covered over. The little *Cyanecula suecica* is a regular cold-weather visitor, as also the *Ruticilla indica* ; this latter is not very common, which is rather singular, considering how plentiful they are in Bengal, whereas the beautiful red-throated *Calliope kamtschatkensis* are not uncommon ; they occur in jungle near grass and water. The *Pratincola indica* is also found seated on hedges and bushes, and during the cold season in groves of trees. The *Erythrosterne leucura* is often met with ; the males, though small, have a slight resemblance to the English Robin : the two most beautiful of this group found near Bar-

rackpoore are the *Cyornis rubeculoides* and the *Staparola melanops*; they are however uncommon, but I was fortunate in getting several specimens of both.

I have now to add a most rare addition to my Barrackpoore collection, viz. three specimens of the *Hemichelidon fuliginosa*: mine appear to be the first specimens obtained here; they are very rare. The next birds we come to are dull species, though very sprightly and active in their habits: the first, *Arundinax olivaceus*, is rare; but the next, *Acrocephalus brunnescens* and *A. dumetorum*, are very common, as well as *Phyllopneuste rama*; these latter are found amongst the branches of high trees. Here the lively and pretty *Culicipeta burkii* is found during the cold season, as well as the *Reguloides modestus* and *R. trochiloides*; both of these latter species are rare. The most common of this group are the *Phylloscopus tristis*, *P. viridanus* and *P. lugubris*, all of which are very abundant, particularly the first two; these birds are so minute that they are scarcely sought for. I found the *Graucalus macei* rather scarce, as well as *Campophaga sykesii*, but *C. fimbriata* is very plentiful.

I now come to the beautiful *Pericrocotus peregrinus* and *P. roseus*; the first is very common, the latter is not so: few birds are more beautiful than the males of this elegant timid species; they are always found in small packs about trees, constantly on the move in search of insects. The Swallows seem limited to three, *Hirundo daurica*, *H. rustica*, which is the same as the English species, and the little river *H. sinensis*; the second of these named species is by no means common, the other two are often met with; the little River Swallows make their nests in holes in the banks of the river: the manner in which the banks are perforated with the holes these birds make is astonishing; several hundreds congregate together and live in perfect harmony. The *Artamus fuscus* is also common; they keep in small packs, frequenting jungles; their habits are very like swallows; they are often seen perched in rows on a long thin twig, occasionally darting off in search of insects. During the cold season several *Chibia hottentota* are to be obtained; the gloss on the plumage of this bird, as well as on that of the common little *Chaptia ænea*, renders them objects of great interest, notwithstanding their black colour. The *Dicrurus macrocercus*, so commonly seen throughout the year in open fields, is also a very interesting species, as well as *D. longicaudatus*; both are very frequent, the former keeping to open fields and the latter near groves of trees. Besides the two mentioned I have obtained a specimen of a third and very rare species, *D. cærulescens*; they are found in groves of trees and have a white belly; the young of the former species are marked with white, but very different from the pure white belly

of the *D. cærulescens*. The *D. macrocercus* is a larger and blacker bird than *D. longicaudatus*, which latter is of a more ashy hue, and is in size only a little larger than *D. cærulescens*: all the birds of this group are called King Crows.

The elegant *Tchitrea paradisi* is common; the young males are brown like the females, with black heads and with the two centre tail-feathers elongated like the adult male; they gradually change their plumage, become mottled with white, and by degrees assume the pure white of the adult male, but retaining the fine glossy black head, crest and neck: the females do not seem to change from brown to white, though old barren females are said to do so. I obtained the nest of this species; it was elongated and built in the fork of a branch like the nest of the *Dicrura*, but more elegant in its formation: this species has been kept alive on shrimps, but it is very delicate and difficult to preserve. *Myiagra cærulea* is common; the delicate blue of the male is very beautiful; the female is of a brown hue, preserving in a slight degree the blue of the male, on the head in particular; they are found amongst the thick foliage of trees: I observed a singular peculiarity of this bird, which was, darting off a branch into water and catching small aquatic insects. There is another common cold-weather bird which appears about the same time as the last, the *Cryptolopha cinereocapilla*; they are of a delicate yellowish hue, with an ash-coloured crest, and are similar in their habits to the *Myiagra cærulea*. But one of the most elegant birds of this group is the *Leucocerca fuscoventris*; this little black-coloured Fan-tail is found in every grove of trees hopping about, with its long fan-shaped tail spread, and every now and then turning round in a sort of self-pride and vanity.

With this bird ends my list of the Flycatchers of Barrackpoore, and I shall now proceed to the well-known *Bulbuls*, or as many Europeans call them, the Nightingales of India: the first and most common species is the large *Pycnonotus bengalensis*; it has a scarlet vent, is very common and a well-known species; natives keep them for fighting. The only other species found here is the small red-cheeked elegant *P. jocosus*; these birds have a very sprightly gay appearance: *Bulbuls* frequent gardens and orchards, keeping in small flocks. Another very common bird is the pretty *Iora typhia*; the males are blacker than the females; I have shot some males so very black about the head as to induce me to the belief that they were *hybrids*. Few birds attract the eye of strangers more than the gay colours of the very common *Oriolus melanocephalus*; their excessive gaudy colour and musical flute-toned note render them objects of great attraction. The little Sun-bird, as the charm-

ing *Nectarinia zeylonica* is called, is very common, and forms a beautiful addition to the fauna of Barrackpoore; early in the morning are these busy little creatures seen sucking the nectar from flowers: I had several of their nests; they are elegantly constructed, and are suspended to the branch of a creeper or other bush; I found a very pretty one suspended to some creepers inside of a bower over my bed-room window. The eggs vary in size and colour as well as in number. The little *Dicaeum cruentatum* with its scarlet back, and the little sombre *D. minimum* are very abundant, but at all times difficult to obtain owing to their extreme minuteness, besides which they keep often in the upper branches of high trees. The Pigeons are limited to very few; the most beautiful found here is the *Toria nipalensis*, a very rare bird; but the *Treron phaenicoptera* and *T. bicincta* are pretty common: all three of these species are called Green Pigeons.

The Doves: *Turtur risorius* and *T. suratensis* are both very common, as well as the lovely Green Dove, *Chalcophaps indicus*; these latter are found in dense jungle and in retired places. The only other species of this order I have seen at Barrackpoore is a half-domesticated and evidently hybrid of *Columba livia*; they are very common and live in old temples and houses; they are often caught and shot for eating.

The only species of Rasores I have found here is the *Turnix bengalensis*, which is the small pale variety of *T. ocellatus*; the eggs of this species were brought to me. It is very singular that I did not obtain a single quail or partridge at this station.

I now close my list of land birds, and shall proceed to enumerate the so-called water birds, of which there is a large and extensive variety: my own collection, I regret to say, is very limited; but they were all I could procure during my residence, after every effort that could be bestowed in search of them. I shall begin by mentioning that the *Sarciophorus bilobus* is common, as well as *Lobivanellus goensis*; this is the true *Teetaree* of the natives; *L. cinereus* is also met with; all these three species are obtained in open fields or near water. The *Charadrius virginiacus*, a closely allied species to our English Golden Plover, is also found in great numbers; so is the little *Hiaticula philippina*. The *Totanus fuscus*, the Spotted Redshank of Europe, is not common, but the *Actitis glareola* (the English Wood Sandpiper), the *A. ochropus* (the English Green Sandpiper), the *A. hypoleucus* (the English common Sandpiper), as well as *Tringa minuta* and *T. temminckii* of England, are all very common species at Barrackpoore; there is scarcely a puddle of water that is not more or less resorted to by some of these birds.

Of the true Snipes of the sporting world, the first is the English species, *Gallinago scolopacinus*; they are very common,

as well as the other well-known common species, *G. stenura*; the only observable difference between these two species is the curious pointed thin feathers under the tail of the latter. The Jack Snipe of England, *G. gallinula*, is also abundant. The next bird I have to mention is the pretty and beautifully marked *Rhynchea bengalensis*; they are called Painted Snipes: the habits of this bird partake more of that of the Woodcocks than the Snipe; I have often shot them in bush jungle at some distance from water; they are excellent eating. I was fortunate in obtaining the egg of this species. The *Metopidius indicus* is also common; the young of this bird differs much in colour from the adult, so much so that they might easily be taken for different birds. The next closely allied genus is the beautiful *Hydrophasianus chirurgus*; this elegant bird is known as the Water Pheasant; they are very plentiful in marshes, where they may be seen in company with the *Metopidius indicus*, running lightly over the surface of the lotus leaves and other aquatic plants; they are always a timid bird.

The curious *Threskiornis melanocephalus*, the black-headed white Ibis of sportsmen, is rare and is considered pretty good eating; the adults have a naked black head and neck, whilst the young are feathered in those parts. The *Tantalus leucocephalus* with its elegant pink feathers is also not uncommon; as also the common Spoonbill, *Platalea leucocephala*; this bird is the same as the English species. I obtained a great many *Anastoma oscitans*; the young of this singular bird alone have their mandibles entire, the edges of the mandibles of the adult being invariably destroyed from their constantly breaking shells of the *Ampullaria* and other things they feed on. I only procured one specimen of the *Mycteria australis*; they are very rare, and one of the finest birds we have of this group. The *Ciconia leucocephala* is also found, but rare. The next I have to mention are those well-known birds called Adjutants, from the circumstance of their frequenting the vicinity of barracks, picking up bones and offal thrown out to them; the most common species is *Leptoptilos argala*; they frequent towns and villages: Calcutta is full of them, and they constantly visit Barrackpoore. The next of this genus is *Leptoptilos javanica*; I only saw one of this small species, in a field near cantonments; they invariably keep in open country and seldom approach towns or villages; they are distinguished from the other species by their inferior size and the scale-like appearance of the feathers on their back.

The Herons found here are but two, *Ardea cinerea* and *A. purpurea*, both common and identical with the English species. We now come to the Egrets: *Herodias alba*, the largest species, is not common, but *Herodias intermedia*, the next in size, is more so,

whilst *H. garzetta* and *H. bubulcus* are very common ; the latter are found in fields following cattle, in search of insects : all these birds are called Paddy Birds by Europeans. I obtained another bird of the genus *Herodias*, but as it may prove to be a *hybrid*, I will make no particular mention of it. The next three species are common, viz. *Butorides javanica*, *Ardeola leucoptera* and *Nycticorax griseus* ; this latter is the same as the Night Heron of England. The *Botaurus stellaris*, or common Bittern of Europe, is also frequently obtained, but the little *Ardetta cinnamomea* is rare. The marshes are abundantly tenanted by the *Porphyrio poliocephalus* ; they are seen early in the morning and late of an evening venturing into fields to feed, but always in the vicinity of water ; their gay colour and natural docility make them great favourites. The *Porzana phœnicura* and *P. pygmæa* are very common ; the former I have frequently shot on trees. The *Rallus striatus* and *R. indicus* are also rarely met with, but the *Gallinula chloropus*, which is the same as the English Moor Hen, is not uncommon. During a very severe gale of wind we had at Barrackpoore, I saw a fine specimen of that splendid large Gull, the *Larus ichthyaëtus*, the only one I saw ; it was flying along the banks of the river, unable to make any progress against the wind. The *Hydrochelidon indica* and *Sterna aurantia* are both common, the latter more so than the former. A large flight of Pelicans passed over Barrackpoore, but of what species I am unable to say, for they flew very high. The *Graucalus pygmaeus* is a common species about ponds and marshes.

I was very unfortunate with my Ducks ; but as my object is only to enumerate what I actually saw, I trust the reader will excuse my giving so small a list. The *Dendrocygna major* and *D. arcuata* are both common ; they are known to Europeans as the Whistling Teal of India. The little Rice Teal, *Nettapus coromandelianus*, is very plentiful, as is also *Querquedula circia*, the English Garganey or Summer Duck. I likewise procured the *Fuligula nyroca*, the White-eyed Duck of Europe ; they are not common ; but the little common Grebe, *Podiceps philippensis*, is very abundant on all ponds and marshes.

This ends my ornithological list of birds actually seen wild and collected by me, at and in the neighbourhood of Barrackpoore during a period of two years : in the Calcutta bazaar a great many more species are exposed for sale, brought from the Soonderbunds and other places ; all these are to be purchased at a very moderate price.

I shall now conclude by giving a brief sketch of the mammalia I saw at Barrackpoore, first mentioning that a Leopard, *Felis leopardus*, was shot in a garden ; it had evidently strayed here from the Soonderbunds ; they have been shot here before, but

are not frequent visitors. A *Paradoxurus typus* just caught was brought to me for sale; the *Herpestes griseus*, or common large Mongoose, is sometimes found; the *Canis aureus* is very common, and in the park of Barrackpoore I have seen this animal (the Jackal of India) allow carriages to pass within a few yards of it, whilst they composedly sat down; the common Fox, *Vulpes bengalensis*, is also found.

Amongst the Rats I obtained *Mus indicus*, *M. flavescens*, *M. nemoralis*, *M. decumanus* and *M. manei*; also *Sorex murinus*, and another *Sorex* which may prove a new species or a very dark variety of the former; the *Sciurus palmarum* is very common.

Amongst the Bats I obtained *Nycticejus castaneus*, *N. luteus*, *Rhinolophus lepidus*, *Taphozaus longimanus*, *Megaderma lyra*, *Cynopterus marginatus* and *Pteropus edwardsii*, all very common; this latter is the Flying Fox of India. Thus ends my list of mammalia found at Barrackpoore: that several other species exist there can be no doubt, yet as I failed to obtain them I refrain from mentioning them. I must not omit mentioning that I received every assistance from my friends E. Blyth, Esq., and Jas. Curr, Esq., during my stay at Barrackpoore, to whom I offer my best thanks.

XXXII.—*Contributions to the Palæontology of Gloucestershire:—A description, with Figures, of some new Species of Echinodermata from the Lias and Oolites.* By THOMAS WRIGHT, M.D. &c., Professor of the Natural Sciences in the Cheltenham Grammar School.

[Concluded from p. 324.]

Ophioderma Gaveyi, Wright, 1852. Pl. XIII. fig. 1 a-c.

Diagnosis.—Disc large, upper surface not exposed, under surface with five pairs of heartshaped plates, above which the five rays pass; the median scutal plates of the rays form a ridge in the centre of each pair of plates; the mouth-opening is surrounded with five pairs of very prominent toothlike processes; the rays are slender and gently tapering; the central scutal plates on the dorsal and ventral surfaces of the rays are narrow, those on the ventral surface resemble the bodies of small vertebræ deprived of their neural elements.

Transverse diameter of the body-disc 1 inch and $\frac{2}{10}$ ths, transverse diameter of the rays at their junction with the disc nearly $\frac{3}{10}$ ths of an inch.

Description.—This Sea-star must have been rather abundant in the Iassic sea; we have seen many fine specimens of it, and